Animal &
Plant Health
Agency

# Great Britain and Northern Ireland Variety List Trials: Trial Procedures for Official Examination of Value for Cultivation and Use (VCU) Harvest 2026

## Forage and grain maize
## Appendices

**September 2025**

## Changes since last version

- Appendix 5 - new controls
- Appendix 9 - Addition for Growth stages for Forage and Grain Maize

## Contents

# Appendix 1 – Approved Trial Organisers and Operators

| Activity | Organisers/Operators Responsible |
|---|---|
| VCU Trials Organiser | BSPB |
| VCU Growing Trial Operators | Niab<br>Hunt Agri Services Ltd<br>Limagrain UK Ltd<br>Grainseed Ltd |
| Seed Handling Operator | Niab |
| Trial Inspection and Technical Validation Operator | Niab |
| Quality Testing Operators | Growing Trial Operators for Dry Matter.<br>Niab for additional tests |
| Trial Design and Data Handling Operator | Niab |
| Data Review and Standard Setting Operator | Niab |

# Appendix 2 – Seed treatments for use on NL trials

Seed to be provided untreated unless treated seed is specifically requested by the trials organiser (BSPB), in which case only the specified treatment may be applied and must be clearly recorded on the seed label and accompanying documentation.

# Appendix 3 – Seed despatch deadline dates

VCU seed must be delivered to the Seed Handling Operator by 15th February.

# Appendix 4 – VCU Growing Trial Operators and trial locations

## 4.1 Growing Trial Operators/Seed Handling Operators

**Forage maize**

| Growing Trial Operators | Seed Handling Operator (if not trial operator) | Location of Trial |
|---|---|---|
| Niab | | Somerset |
| Niab | | Devon |
| Hunt Agri Services Ltd | Niab | Chesire |
| Hunt Agri Services Ltd | Niab | Gloucestershire |
| Grainseed Ltd | Niab | Wiltshire |
| Limagrain UK Ltd | Niab | Nottinghamshire |

**Grain maize**

| Growing Trial Operators | Seed Handling Operator (if not trial operator) | Location of Trial |
|---|---|---|
| Niab | | Dorset |
| Limagrain | | Nottinghamshire<br>Dorset |

## 4.2 Pathology Trial Operator

| Pathology Trial Operator | Location of Trial |
|---|---|
| Not applicable | Not applicable |

# Appendix 5 – Control Varieties for VCU Assessments

The control varieties for Forage Maize are:

- Prospect
- Bonnie
- KWS GranturismoSmoothi CS
- Conclusion
- KWS Pasco

The control varieties for Grain Maize are:

- Conclusion
- Ambition

# Appendix 6 – Dates for Submission of Data

Dates by which Records should be sent to Data Handling Operator:

| Record | Latest date of receipt by Trials Organiser |
|---|---|
| Site data part 1 and site sketch | One month after drilling |
| Site data part 2 | 31 July |
| Plot records (in approved electronic format) | Immediately |

# Appendix 7 – Disease Assessment Key

## 7.1 Leaf diseases

| | |
|---|---|
| **1** | Examine all leaves in 3 areas of each plot |
| **2** | Include all necrosis and chlorosis attributable to disease to be assessed |
| **3** | Estimate % infection using the description below, interpolating values if necessary |
| **4** | Record the average % infection from the 3 areas |

## 7.2 Infection disease severity description

| | |
|---|---|
| **0** | No infection observed |
| **0.1** | Older leaves with a trace of infection, other leaves uninfected |
| **1** | Older leaves with up to 10% infection, other leaves largely uninfected |
| **5** | Older leaves with up to 25% infection, middle aged leaves with a trace of infection |
| **10** | Older and middle-aged leaves with up to 25% infection, young leaves largely uninfected |
| **25** | Leaves of all ages appear 50% infected 50% green on average |
| **50** | Leaves of all ages appear more infected than green on average |
| **75** | Very little green tissues left |
| **100** | No green tissue left |

# Appendix 8 – Herbicide Usage for Forage Maize Variety List Trials

Use approved herbicides/pesticides according to current legislation

The following sole active ingredients must not be used in trials:

- Rimsulfuron (example product Titus)

The following active ingredient may only be used in trials after consultation and with the permission of the Trials Organiser:

- Nicosulfuron (example product Samson Extra)
- Mesotrione (example product Callisto)

If the Trials Operator has concerns over the use of any herbicide products not mentioned above, they should consult with the Trials Organiser.

In all cases trials should be closely monitored and if any crop damage is seen on any variety this must be recorded and reported to the Trials Organiser.

# Appendix 9 – Growth stages of Forage and Grain Maize

Maize Weber and Bleiholder, 1990; Lancashire et al., 1991

Phenological growth stages and BBCH-identification keys of maize (Zea mays L.)

**Code Description**

**Principal growth stage 0: Germination**

00 Dry seed (caryopsis)
01 Beginning of seed imbibition
03 Seed imbibition complete
05 Radicle emerged from caryopsis
06 Radicle elongated, root hairs and /or side roots visible
07 Coleptile emerged from caryopsis
09 Emergence: coleoptile penetrates soil surface (cracking stage)

**Principal growth stage 1: Leaf development 1, 2**

10 First leaf through coleoptile
11 First leaf unfolded
12 2 leaves unfolded
13 3 leaves unfolded
Stages continuous till…
19 0 or more leaves unfolded

**Principal growth stage 3: Stem elongation**

30 Beginning of stem elongation
31 First node detectable
32 2 nodes detectable
33 3 nodes detectable
Stages continuous till …
39 9 or more nodes detectable

**Principal growth stage 5: Inflorescence emergence, heading**

51 Beginning of tassel emergence: tassel detectable at top of stem
53 Tip of tassel visible
55 Middle of tassel emergence: middle of tassel begins to separate
59 End of tassel emergence: tassel fully emerged and separated

1) A leaf may be described as unfolded when its ligule is visible or the tip of next leaf is visible
2) Tillering or stem elongation may occur earlier than stage 19; in this case continue with principal growth stage 3
3) In maize, tassel emergence may occur earlier, in this case continue with principal growth stage 5

**Principal growth stage 6: Flowering, anthesis**

61 Male: stamens in middle of tassel visible
Female: tip of ear emerging from leaf sheath63 Male: beginning of pollen shedding
Female: tips of stigmata visible

65 Male: upper and lower parts of tassel in flower
Female: stigmata fully emerged

67 Male: flowering completed
Female: stigmata drying

69 End of flowering: stigmata completely dry

**Principal growth stage 7: Development of fruit**

71 Beginning of grain development: kernels at blister stage, about 16% dry matter
73 Early milk
75 Kernels in middle of cob yellowish-white (variety-dependent), content milky, about 40% dry matter
79 Nearly all kernels have reached final size

**Principal growth stage 8: Ripening**

83 Early dough: kernel content soft, about 45% dry matter
85 Dough stage: kernels yellowish to yellow (variety dependent), about 55% dry matter
87 Physiological maturity: black dot/layer visible at base of kernels, about 60% dry

matter
89 Fully ripe: kernels hard and shiny, about 65% dry matter

**Principal growth stage 9: Senescence**

97 Plant dead and collapsing
99 Harvested product

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